

IN THE CLAIMS

Please amend the claims as follows:

Claim 1-32 (Canceled).

Claim 33 (New): A method for producing a liquid crystal optical element, which comprises sandwiching a mixture of a liquid crystal with an uncured curable compound between a pair of substrates which are provided with transparent electrodes and of which at least one is transparent, and curing the curable compound to form a liquid crystal/cured composite layer, wherein the curable compound contains a compound of the formula (1):



wherein each of A_1 and A_2 which are independent of each other, is an acryloyl group, a methacryloyl group, a glycidyl group or an allyl group; each of R_1 and R_2 which are independent of each other, is a C_{2-6} alkylene group; Z is a bivalent mesogen structure; and each of n and m which are independent of each other, is an integer of from 1 to 10, wherein the curable compound contains a curable compound containing a mesogen structural portion in its molecule and a curable compound containing no mesogen structural portion.

Claim 34 (New): The method for producing a liquid crystal optical element according to Claim 13, wherein Z is a 4,4'-biphenylene group, or a 4,4'-biphenylene group having part or all of hydrogen substituted by C_{1-2} alkyl or halogen atoms.

Claim 35 (New): The method for producing a liquid crystal optical element according to Claim 33, wherein each of R_1 and R_2 which are independent of each other, is an ethylene group or a propylene group.

Claim 36 (New): The method for producing a liquid crystal optical element according to Claim 33, wherein each of A₁ and A₂ which are independent of each other, is an acryloyl group or a methacryloyl group.

Claim 37 (New): The method for producing a liquid crystal optical element according to Claim 33, wherein each of n and m which are independent of each other, is from 1 to 4.

Claim 38 (New): The method for producing a liquid crystal optical element according to Claim 33, wherein the curable compound contains two types of curable compounds, of which the molecular weights are different by at least two times.

Claim 39 (New): The method for producing a liquid crystal optical element according to Claim 38, wherein the two types of curable compounds have curable sites connectable to each other.

Claim 40 (New): The method for producing a liquid crystal optical element according to Claim 38, which contains a curable compound having a molecular weight of at least 1,000.

Claim 41 (New): The method for producing a liquid crystal optical element according to Claim 33, wherein the mixture contains a chiral agent.

Claim 42 (New): The method for producing a liquid crystal optical element according to Claim 33, wherein the mixture contains a chiral agent, and the helical pitch of the chiral agent is at least 4 μm and at most three times of the electrode gap.

Claim 43 (New): The method for producing a liquid crystal optical element according to Claim 42, wherein the electrode gap is from 4 to 50 μm .

Claim 44 (New): The method for producing a liquid crystal optical element according to Claim 42, wherein the helical pitch is at least 5 μm and at most two times of the electrode gap.

Claim 45 (New): The method for producing a liquid crystal optical element according to Claim 33, wherein the mixture contains a very small amount of a curing catalyst.

Claim 46 (New): The method for producing a liquid crystal optical element according to Claim 33, wherein a plurality of compounds of the formula (1) wherein n and m are different, are used in combination.

Claim 47 (New): A liquid crystal optical element produced by the method as defined in Claim 33.

BASIS FOR THE AMENDMENT

Claims 1-32 have been canceled. Claims 33-47 have been added. Support for the new claims is found in the original claims. No new matter is believed to have been added by this amendment. An action on the merits and allowance of claims is solicited.

Respectfully submitted,

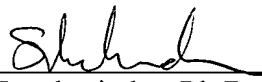
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